

CLAIMS

1. A flying object for observing the ground, comprising an elongate body (2), characterized:

5 - in that it comprises:

- 10 • a lift and displacement motor (3), of the type with combustible propelling charge, associated with first exhaust nozzles (4) directed towards the rear (2R) of said elongate body and distributed laterally about the latter, producing lateral maneuvering forces whose lines of action pass through the center of gravity (CG) of said flying object, said forces being able to ensure the lift and the displacements of said flying object in an observation position for which said object is at least approximately vertical with the rear end of said flying object directed downwards;
- 15 • an attitude motor (5), of the type with combustible propelling charge, associated with second exhaust nozzles (6), directed towards the rear (2R) of said elongate body and distributed laterally around the latter, producing lateral maneuvering forces able to maintain said flying object in said at least approximately vertical observation position; and
- 20 • picture taking means (14), disposed at the rear (2R) of said elongate body and able to observe said ground when said flying object is in said at least approximately vertical observation position;
- 25 and
- 30 - in that said lift and displacement motor (3) and said attitude motor (5) are disposed on either side of said center of gravity (CG) of the flying object and in that, during the combustion of the respective propelling charges of these latter two motors, the position of said center of gravity remains at least approximately fixed.
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2. The flying object as claimed in claim 1,  
characterized in that said lift and displacement motor  
(3) exhibits a larger mass than said attitude motor (5)  
and is closer to the center of gravity (CG) of the  
5 flying object than the latter.

3. The flying object as claimed in one of claims 1 or  
2,  
characterized in that said attitude motor (5) is  
10 disposed at the rear of said elongate body, while said  
lift and displacement motor is disposed just in front  
of the center of gravity (CG) of said flying object.

4. The flying object as claimed in one of claims 1 to  
15 3,  
characterized in that the roll orientation of said  
flying object is controlled by the lift and  
displacement motor (3).

20 5. The flying object as claimed in one of claims 1 to  
4,  
characterized in that it is launched by a launch and  
control post (18) comprising a propulsion or ejection  
system which is specific thereto and which is not  
25 carried by said flying object.

6. The flying object as claimed in claim 5,  
characterized in that it comprises means of linking  
(16) with said launch and control post (18).

30 7. The flying object as claimed in claim 6,  
characterized in that said means of linking (16)  
comprise at least one optical fiber (8).

35 8. The flying object as claimed in one of claims 1 to  
7,

characterized in that it comprises an additional picture taking means (17) disposed at the front of said elongate body.

5 9. The flying object as claimed in one of claims 1 to 8,  
characterized in that it carries a warhead charge and  
in that it comprises means of propulsion and means of  
guidance allowing it to attack, via the rear part (2R)  
10 of said elongate body, a target (21) detected for said  
picture taking means (14) disposed at the rear of said  
elongate body.

10. The flying object as claimed in claim 9,  
15 characterized in that said means of propulsion and said  
means of guidance (11, 13) of said object in the  
direction of said target (21) are independent of said  
lift and displacement motor (3) and of said attitude  
motor (5).

20 11. The flying object as claimed in claim 10,  
characterized in that said means of propulsion and said  
means of guidance of said object in the direction of  
said target consist of an additional motor (11, 13)  
25 disposed at the front (2A) of said elongate body (12).

12. The flying object as claimed in claim 11,  
characterized in that said additional motor (11, 13) is  
disposed behind a droppable hood (12).

30 13. The flying object as claimed in claim 9,  
characterized in that said means of propulsion and said  
means of guidance of said object in the direction of  
said target (21) are respectively formed by said lift  
35 and displacement motor (3) and by said attitude motor  
(5), associated respectively with third and fourth  
nozzles, directed towards the front (2A) of said

elongate body and distributed laterally around the latter.

14. The flying object as claimed in claim 13,  
5 characterized in that said first and second nozzles (4, 6) are orientable and form said third and fourth nozzles (7, 8) when they are oriented towards the front (2A) of said elongate body.
- 10 15. The flying object as claimed in claim 13, characterized in that said third and fourth nozzles (9, 10) are fixed and are supplied with combustion gas by said lift and displacement motor (3) and by said attitude motor (5).